

REMARKS

This Amendment and Response is in reply to the Office Action of September 13, 2007. A two (2) month Petition for Extension of Time is filed concurrently herewith. Therefore, the time period for reply extends up to and includes February 13, 2008. Applicants wish to thank the examiner for careful review and consideration of the present application.

Claims 1-11 have been cancelled without prejudice. Claims 12-24 are new. The new claims are fully supported by the specification. No new matter has been added.

Claim Rejections Under 35 U.S.C. § 103(a)

The Examiner rejected claims 1-9 under 35 U.S.C. § 103(a) as obvious over Hazama (US 4,194,050). Although this rejection has not been raised against the newly presented claims, it is discussed insofar as it might apply. Applicants respectfully traverse this rejection.

In fact, the Hazama reference teaches away from the presently claimed invention. First, the Hazama reference teaches that references such as platinum, palladium or rhodium produce undesired side products when used as catalysts for oxime hydrogenation. Specifically, the Hazama reference recites "when oximes are hydrogenated in the presence of a carboxylic anhydride using a platinum metal catalyst such as platinum, palladium or rhodium, one mole of the oximes absorbs two moles of hydrogen of produce the acylated products of the primary amine" (column 1, line 44-48). The desired product is the enamide, acylated products of the primary amine are undesirable side products and detract from efficiencies of producing enamides.

Hazama teaches that platinum, palladium, and rhodium are undesirable as catalysts for this reaction. In contrast, the presently claimed invention employs Pd, Ir, Pt, Rh, or Ni as effective catalyst for hydrogenation of an oxime. Surprisingly, and contrary to the teachings of the Hazama reference, Applicants have found that the use of platinum metal catalysts yields enamides as the major product. Thus, the Hazama reference teaches away from the presently claimed invention.

Further, the Hazama reference discloses effective catalysis only using ruthenium hydrogenation catalysts (examples 1-12). Again, in marked contrast to the teachings of Hazama, Applicants have found that the use of platinum metal catalysts yield enamides as the major

product. Thus, the Hazama reference neither teaches nor suggests the presently claimed invention.

Hazama recites that an alpha hydrogen on the oxime is required to produce eneamides in high yields from said oximes. The present application does not require an alpha hydrogen on the oxime to form eneamides in high yields. Thus, using metal hydrogenation catalysts such as Pd, Ir, Pt, Rh or Ni of the present application unexpectedly produce a broader spectrum of eneamides.

The methods of Hazama, employing a ruthenium hydrogenation catalyst, provides impure eneamides at low to moderate yields. In Example 1, Hazama provides a mixture of 25.8% of an eneamide (1-acetylamino-cyclohexene), with 57.5% of a diacetyl compound impurity. Additionally, Table 1 shows a large distribution of product yields, some as low as 2.5%. In contrast, the present invention, as shown by example 1 to 5, recite yields ranging between 57.5% (ex 2d) and 85% (ex 4b). The associated chemical purity is greater than 90% and can reach 98.4% (example 2a) or 98.95% (example 1c). In contrast, the Hazama reference fails to provide an efficient industrial method of manufacture of eneamides.

Accordingly, based on the foregoing, Applicants respectfully submit that the Hazama reference neither teaches nor suggests the presently claimed invention, and withdrawal of this invention is respectfully requested.

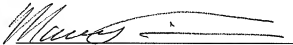
Summary

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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